

HEALTH DEPARTMENT.

REPORT

ON THE HEALTH OF THE

CITY OF LIVERPOOL

DURING THE YEAR

1917

WITH OBSERVATIONS UP TO 1ST AUGUST, 1918.

BY

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LIVERPOOL

TINLING & CO., LTD., PRINTING CONTRACTORS, 53, VICTORIA STREET.

—
1918.



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PREFACE.

Owing to circumstances of War the Annual Report upon the Health of the City is again comprised within the narrowest limitations. The difficulties incidental to the absence of a large proportion of the staff upon various phases of War work have been overcome to a great extent by the appointment of temporary officers, a large number of whom are women, by the return to duty of some of those who were engaged in semi-military work elsewhere, and by the strenuous attention of all. The health of the City has, on the whole, been excellent; incidents calling for comment will be found in the text.

The number of births has steadily declined from 23,065 in 1914 to 17,906 in 1917, representing a fall in the birth-rate from 30.0 to 22.9, the lowest birth-rate ever recorded in Liverpool. The wide expansion, however, of measures designed to promote the welfare of motherhood and infancy has continued to exercise a beneficial influence, and the rate of infant mortality, viz., 115 per 1,000 births is also the lowest on record. It may hardly be necessary to point out that the saving of infant life, gratifying as it is, does not fully compensate for the loss resulting from the diminishing birth-rate, and, notwithstanding the progressive saving of infant life in recent years, from the point of view of population we are worse off than when the birth-rate was high, notwithstanding that infant-saving measures were less effective, e.g., in 1905 there were 24,350 births and 3,710 deaths of infants under one year of age, giving a nett increase in the infant population for that year of 20,640; last year with 17,906 births and 2,071 deaths, the nett increase in the infant population was 15,835, so that in the year 1905 the addition to the surviving infant population was larger than in the year 1917 by no less than 4,805. After the War there is no reason to doubt that there will be a speedy return to the normal birth-rate. Copies of the special reports by the Medical Officer of Health relating to Infant Welfare have already been circulated.

With regard to the death-rate, a further decline has been recorded, the rate being 16.7 per thousand, which is the lowest death-rate ever recorded in Liverpool.

The preceding remarks will indicate sufficiently what influence the decline in the birth-rate and the decline in the infant mortality rate have had on the general mortality rate.

The rationing of food has imposed a considerable amount of work upon the Department, and reports have been duly forwarded to the Committees concerned. There is no evidence that the Public Health has suffered materially by rationing; if food supplies have been restricted in some directions, there has been an amplification in others; abundance of occupation has removed the poverty incidental to times of precarious and uncertain employment, and the present high scale of wages has placed a sufficient food-supply within the reach of practically everybody. Food rationing has involved many inconveniences and difficulties, but there are few, if any, evidences of real hardship.

During the year extremely encouraging work has been done in connection with minimising venereal diseases; Institutions such as the Royal Infirmary and the Royal Southern Hospital and others have afforded facilities which have been availed of to an extent which might hardly have been anticipated, and a large number of sufferers have taken advantage of the facilities offered for treatment. The Medical Officer of Health has already reported fully upon this question, and copies of the reports are in the hands of the members of the Council.

With regard to the importation of infectious sickness into the City it is as gratifying as it is remarkable that scores of thousands of troops arriving in the City have been almost wholly free from infection of any kind, a circumstance which reflects the care taken at the ports of embarkation and during the voyage.

Whatever difficulties might have been encountered in the administrative problems in regard to the health of the City the nett results, with few exceptions, cannot be regarded as other than satisfactory.

E. W. HOPE,

Medical Officer of Health.

PUBLIC HEALTH DEPARTMENT,
MUNICIPAL OFFICES,

LIVERPOOL, 1st August, 1918.

SUMMARY OF VITAL STATISTICS FOR 1917.

Area of City	21,219 Acres. (33 square miles)
Population (estimated to the middle of the year)	781,948
Births	17,906, Birth-rate 22·9.
Deaths	13,093, Death-rate 16·7.
Infantile Mortality	2,071 Deaths under one year.
Infant Mortality Rate	115 per 1,000 Births.
Zymotic Death-rate (7 principal Zymotic Diseases)	1·6 per 1,000.
All forms of Tuberculosis (including Phthisis)	2·2 per 1,000.
Phthisis Death-rate	1·7 per 1,000.

BIRTHS.

The number of births recorded during the year 1917 within the City was 17,906, equal to a rate of 22.9 per 1,000 of the population, the average of the previous five years (1912-1916) being 28.8. The rates are calculated upon the corrected population as ascertained by the Census Returns of 1901 and 1911. Of the total births 8,965 were males and 8,941 were females. The number of illegitimate births was 823, or 4.6 per cent. of the total births, 433 being males and 390 females.

The Registrar General intimated that 95 of the births registered in the City should be deducted as non-resident, and this has accordingly been done, the above figures being the net numbers after the deduction has been made.

The birth-rate in the City of Liverpool is considerably above the average of the great towns, which is 18.1 per 1,000 of the population, as well as of England and Wales taken as a whole, where the rate is 17.8 per 1,000.

The variations in the birth-rate, and the distribution of the births in the different wards and districts of the city have been arranged in the following tables:—

The following table shows the population, number of births and deaths, and the rates per 1,000 in each district of the City for the year 1917:—

Districts.	Estimated Population	BIRTHS.		DEATHS.	
		Number of Births.	Rate per 1,000.	Number of Deaths.	Rate per 1,000.
SCOTLAND	44,542	1,424	32·0	1,112	24·9
EXCHANGE	35,573	869	24·4	968	27·2
ABERCROMBY	42,219	886	21·0	853	20·2
EVERTON	120,150	3,100	25·8	2,353	19·6
KIRKDALE	66,933	1,729	25·8	1,149	17·1
WEST DERBY (WEST) ...	85,077	2,033	23·9	1,381	16·2
TOXTETH	100,259	2,537	25·3	1,776	17·7
WALTON	86,824	1,709	19·7	1,008	11·6
WEST DERBY (EAST) ...	73,101	1,393	19·0	866	11·8
WAVERTREE	48,445	893	18·4	523	10·8
TOXTETH (EAST) ...	36,611	514	14·0	428	11·4
GARSTON	28,764	621	21·6	341	11·8
FAZAKERLEY	6,482	83	12·8	51	7·9
WOOLTON	6,968	115	16·5	92	13·2
NO ADDRESS ... ...	...	...	...	192	...
	781,948	17,906	22·9	13,093	16·7

The following table shows the Birth, Death and Infant Mortality rates of the City for the last ten years:—

Year.		Estimated Population.	Birth Rate.	Death Rate.	Infant Mortality Rate.
1908	...	734,648	32·5	18·9	140
1909	...	738,960	31·9	18·8	143
1910	...	743,295	31·0	17·9	139
1911	...	747,627	30·0	19·5	154
1912	...	752,021	29·5	17·7	125
1913	...	756,553	29·8	18·0	132
1914	...	767,992	30·0	19·5	139
1915	...	772,595	27·9	18·7	133
1916	...	777,247	26·6	17·9	117
1917	...	781,948	22·9	16·7	115

INFECTIOUS SICKNESS.

Notwithstanding the fact that the City is peculiarly liable to the importation of the various forms of infectious disease owing to its close association with all parts of the world, by reason of the large volume of shipping arriving in the port, it has during the past year been remarkably free from all the more formidable forms of infectious sickness.

No case of plague occurred in the City, but the systematic measures referred to in previous reports in regard to the catching and examination of rats were carried on as usual and all the precautionary measures carried out at the docks, in warehouses and other likely places were kept in operation throughout the year.

On February 10th, the wife of an Italian reservist who had arrived in the port on the 1st inst. from Archangel was found to be suffering from smallpox and taken to the Port Sanitary Hospital, New Ferry. On the 19th February a carpenter who had been working in the vicinity of the ship which had brought the previous case into the Port was found to be suffering from smallpox and removed to hospital along with his wife who subsequently also developed the disease. A number of persons who had been in contact with the cases were also removed to hospital for isolation and observation. There was no further development of the disease. One of the patients died.

With regard to Typhus Fever an inmate of an institution was notified to be suffering from this disease in November last and removed to hospital. As there was no history of any previous sickness or any clue to the source of infection, except the sorting of some worn-out clothing, the exact nature of the disease may be considered to have been somewhat doubtful. All the necessary precautions, however, were adopted and there was no spread of the disease. The patient recovered.

Enteric fever showed a still further reduction from the low number recorded in the previous year, namely, 61 cases, against 76. There were 15 deaths, compared with an average of 43 during the past ten years.

The number of cases of Scarlet Fever was slightly more than in the previous year. The disease showed the greatest amount of prevalence during the last four months of the year. Many of the cases were of a very mild character. The total number of deaths was 71.

Under the Public Health (Measles and German Measles) Regulations 1915, 9,230 cases of these diseases were dealt with, compared with 14,732 cases in the preceding year. The greatest number of cases occurred between the months of March and June. The number of cases removed to hospital was 1,184, a number larger by nearly 100 than the record number of the previous year, and the deaths totalled 436. The Order of the Local Government Board dealing with the notification of Measles authorises local authorities to provide medical, including nursing, assistance for the poorer inhabitants in their districts; and in accordance therewith four nurses have been appointed by the Health Committee to deal with such cases as were contemplated by the Order. In consequence of the visits of these Nurses many cases have been removed to hospital for treatment that otherwise would have been left at home without adequate care and attention. The demand for the isolation and hospital treatment of cases of Measles grows year by year and it is very desirable that further accommodation should be provided

The deaths from Whooping Cough were 132, as against an average of 284 in the preceding ten years.

Deaths from Diphtheria numbered 143, as compared with an average of 113 in the preceding ten years.

Four cases of Poliomyelitis came under the notice of the Department during the year, and in three cases death occurred. One of the patients was removed to Hospital.

Thirty-four cases of Cerebro-spinal Fever were recorded during the year, with 23 deaths. Thirty-two cases were treated in hospital. Six patients were above fifteen years of age. Every case was carefully investigated, but the source of infection could not be traced. Those who had been in contact with the cases were kept under observation, and in some of the cases bacteriologically examined. No extension of the disease took place in the houses where cases were reported.

Seven cases of Anthrax were notified to the Department during the year, and in one case death occurred. A large proportion of the cases occurring from this disease are amongst warehousemen and porters and especially amongst those engaged in handling or in some way associated with imported hides or wool.

DEATHS FROM EXCESSIVE DRINKING. &c.

The returns for the year show that there has been a very considerable decrease in the number of deaths due to or accelerated by excessive drinking of intoxicating liquors. This great diminution has been observed not only in Liverpool but throughout the country, and full details are given in the Annual Reports of the Central Control Board (Liquor Traffic). The beneficial results obtained by the restricted manufacture and sale of intoxicating drink are not only to be measured by a reduced mortality, but the reports show a great decrease in the number of convictions for drunkenness and in the number of cases of delirium tremens coming under treatment in public institutions.

The decrease in the mortality from excessive drinking is especially noticeable in regard to females, and has been followed by a further decrease in the numbers of infants dying from suffocation caused through overlying by their parents. The following table shows the deaths due to excessive drinking during the past four years:—

YEAR.	MALES.	FEMALES.	TOTAL.
1914	73	52	125
1915	48	38	86
1916	35	9	44
1917	33	15	48
1918 (to June 30th)	11	2	13

The deaths of infants under one year of age from suffocation have been as follows :—

METEOROLOGY.

Mr. W. E. Plummer, M.A., F.R.A.S., Astronomer to the Mersey Docks and Harbour Board, has kindly furnished the following tables relating to Meteorological observations made by him at the Liverpool Observatory, Bidston:—

LIVERPOOL OBSERVATORY, BIDSTON, BIRKENHEAD.

Latitude $53^{\circ} 24' 5''$ N. Longitude $3^{\circ} 4' 20''$ W.

Height above the Mean Level of the Sea 202 feet.

1917.	Barometer. Mean.	Temperature. Mean.	RAINFALL.		Mean Humidity of the air (Complete Satura- tion equal 100).
			Amount.	No. of days on which .01 in. or more fell.	
	Inches.	Degrees.	Inches.		
January	29.947	35.7	1.537	11	90
February	30.155	34.9	1.721	9	89
March	29.841	37.6	2.890	17	82
April	29.900	41.5	2.247	14	82
May	29.997	54.4	3.451	12	73
June	30.026	58.0	1.705	14	75
July.....	30.066	61.8	1.243	8	70
August	29.671	59.8	5.716	25	79
September	30.012	57.7	1.133	12	81
October	29.685	47.1	5.229	25	79
November	30.051	47.6	2.298	21	85
December	30.229	38.7	1.353	15	84

DIFFERENCE FROM THE AVERAGE QUANTITIES OBSERVED DURING THE
LAST 50 YEARS.

1917.	BAROMETER.		TEMPERATURE.		RAINFALL.	
	Above Average.	Below Average.	Above Average.	Below Average.	Above Average.	Below Average.
January	Inches. 0·000	Inches. ...	Degrees. ...	Degrees. 3·5	Inches. ...	Inches. 0·579
February	0·241	...	...	6·3	0·014	...
March .....	...	0·037	...	4·6	1·060	...
April .....	...	0·008	...	5·8	0·603	...
May	0·031	...	2·6	...	1·509	...
June	0·041	...	0·6	...	...	0·382
July	0·117	...	1·0	...	...	1·386
August .....	...	0·247	...	0·7	2·671	...
September	0·041	...	1·5	...	...	1·564
October.....	...	0·189	...	2·5	1·848	...
November	0·163	...	4·4	...	...	0·262
December.....	0·392	...	...	1·2	...	1·293

OBSERVATIONS OF VELOCITY OF WIND.

1917.	Average Hourly Velocity for Month.	Maximum Hourly Velocity.	Date.	Minimum Hourly Velocity.	Date.
January	Miles. 19·9	Miles. 48	Jan. 3, 4, 8	Miles. 1	January 16.
February....	10·6	33	Feb. 26	0	February 12, 24.
March.....	18·8	49	Mar. 7, 19	0	March 12.
April	17·4	42	April 14	0	April 6.
May	12·7	34	May 5	1	May 3, 5, 13, 14.
June	11·3	35	June 3	1	June 10, 19, 20.
July	12·1	43	July 19	0	July 22, 23.
August	15·6	40	Aug. 28	1	August 6, 7, 10.
September..	15·3	46	Sept. 13	1	September 17, 19.
October.....	20·9	72	Oct. 25	0	October 28.
November...	22·5	75	Nov. 25	0	November 2.
December...	18·3	53	Dec. 14	0	December 22.

CHILD WELFARE.

INFANT MORTALITY AND ITS PREVENTION.

The question of Infant Mortality and the preventive measures adopted for further protecting child life has been fully dealt with in Special Reports made to the Health Committee by the Medical Officer of Health. Statistics are given showing the variation in the rate of mortality in the different districts of the City.

The relation which the deaths of infants under one year of age has borne to every thousand births in the various districts of the City during the year 1917 and during the previous five years, 1912-1916, is shown in the following table:—

DISTRICTS.	Number of Births. 1917.	Number of Deaths under 1 year of age. 1917.	Deaths under 1 year per 1000 Births. 1917.	Average number of Deaths under 1 year per 1000 Births 1912-1916.
Scotland	1,424	216	151	165
Exchange	869	147	169	193
Abercromby	886	97	109	149
Everton	3,100	416	134	144
Kirkdale	1,729	206	119	145
West Derby (West)	2,033	235	115	122
Toxteth	2,537	265	104	128
Walton	1,709	177	103	94
West Derby (East)	1,393	118	85	96
Wavertree	893	64	72	88
Toxteth—East	514	44	85	80
(late Toxteth Rural)				
Garston	621	65	104	113
Fazakerley	83	12	144	100
Woolton	115	9	78	—
City	17,906	2,071	115	129

Further details in reference to action taken in connection with Maternal and Child Mortality has been set out in a special Memorandum which has been distributed to Members of the City Council.

THE WORK OF THE FEMALE SANITARY STAFF.

The duties of the Health Visitor are many and varied, being especially directed to the prevention of disease and to the care of infants and young children. To further these aims, house-to-house visitation is carried out in the poorer parts of the City and special visits are paid by trained Nurses to such cases as epidemic diarrhoea and the infectious fevers. Throughout every branch of the work it is the endeavour of the Health Visitor to engender in the people a desire for healthier and cleaner modes of life, to help them to realise the greater comfort in their homes which lies within their reach.

The duties assigned to the Female Staff include the following:—

Visits under Notification of Births Act.

House-to-House Inspection.

Attendance at School Medical Inspections, and following up in the homes cases of physical defects found by the Medical Inspector.

Attendance at Vision, Dental and Tonsils Clinics.

Visits to neglected and verminous school children, and ensuring the cleansing of verminous children.

Care of dirty and neglected aged persons.

Re-Visits to Phthisis cases in connection with the work of the Tuberculosis Officers.

Visits to infectious school cases (Infectious Skin Diseases).

Care of cases referred from various voluntary or other organisations, e.g.:—

Invalid Children's Association.

Central Relief Society.

Police.

Soldiers' & Sailors' Families' Association.

Relieving Officers.

Liverpool Society for Prevention of Cruelty to Children.

Work at Infant Welfare Centres.—This includes—

General Management of Centres.

Lecture—demonstrations to the Mothers in Cookery, Laundry Work, Sewing and Housewifery.

Visiting and demonstrating in the homes.

Home treatment of children suffering from infectious illness for whom Hospital accommodation cannot be found. This work is carried out by a Staff of fully-trained Nurses who visit the cases once or twice daily as the need requires.

NOTIFICATION OF BIRTHS ACT, 1907.

Number of Births notified during the year ...	... 15,734
Number of Births visited during the year ...	... 15,031
Percentage visited during the year ...	... 95

INFECTIOUS DISEASE IN SCHOOLS.

The following is a list of the schools closed during the year owing to the prevalence of Whooping Cough, and other infectious disease amongst the scholars:—

Date of Notice.	School.	Department.	Nature of Disease.	Period of Closure.
1917 Dec. 8	St. Michael's R.C., York Street	Infants'	Whooping Cough	Until after Christmas Holidays
„ 13	Lister Drive Council	„	Whooping Cough, &c.	Do. do.
„ 13	St. Anne's C.E., Stanley ...	„	„	Do. do.
„ 13	St. Paul's C.E., Kirkdale...	„	„	Do. do.
„ 13	St. Alexander's R.C., „	„	„	Do. do.
„ 13	Daisy Street Council	„	„	Do. do.
„ 13	St. John the Baptist's C.E. Tuebrook	„	„	Do. do.

PUBLIC ELEMENTARY SCHOOLS.

		<u>1916.</u>	<u>1917.</u>
No. of Visits to Schools ...	... ... ... ...	2,221	2,107
,, found incorrect ...	... ... ... ...	55	78
,, of Water-closets and latrines found dirty or defective ...	... ... ... ...	64	111
,, of Notices issued for defects ...	... ... ...	38	3

NOTICES TO SCHOOL TEACHERS

The arrangements have been continued with the Education Committee that notice shall be sent to the Education Department and postcards to the Head Teachers of the various schools informing them when children from infected houses attend their schools; 9,085 cards were sent last year, as against 10,816 in the preceding year.

INFANT WELFARE CENTRES.

The following statistics relating to the working of the Centres during the year gives some indication of the useful nature of the work.

The high rate of infant mortality, attributable to improper feeding, justifies the continuation of the centres at which a preparation of pure cows' milk is made to resemble human milk as closely as possible. This preparation is intended for the use of infants, whose mothers are unable to suckle them.

The infants fed on humanised sterilized milk during the year were 11,297, viz., 2,557 on the books at the beginning of the year, and 8,740 admitted during the year.

The number of discharges during the year was 6,428, and the number remaining on the books at end of year, 4,869. Included in these numbers were 1,121 infants fed on dried milk, of whom 788 were admitted during the year.

The number of attendees of mothers and infants at the Centres during the year for weighing and advice, etc., was 26,732.

The number of visits paid to children in their own homes by the inspectors attached to the Centres in order to see that the children were being properly fed and cared for was 6,397.

MIDWIVES ACT, 1902.

During the year 1917, two hundred and nineteen midwives gave the required notice, under Section 10, of their intention to practise midwifery.

A total of 12,602 births was attended by these midwives, and 1,471 by the midwives on the Staff of the Ladies' Charity, making altogether 78·6 per cent. of the total number of births registered in the City. So far as can be ascertained there were no births attended during the year by uncertified women.

STATEMENT OF NOTIFICATIONS OF BIRTHS RECEIVED DURING

THE YEARS:—

Notifications Received from	1916.		1917.	
	Births.	Per centage of Births Registered in the City.	Births.	Per centage of Births Registered in the City.
Certified Midwives	14,301	69·16	12,592	70·32
Medical Attendants.....	1,480	7·15	1,281	7·16
Poor Law Institutions	417	2·02	385	2·15
Ladies' } Maternity Hospital...	478	2·31	508	2·83
Charity } District Homes	980	4·74	934	5·21
Uncertified Women.....	—	—	—	—
Parents	31	0·15	34	0·19
	17,687	85·53	15,734	87·87

Total Number of Births registered in the City	}	1916	—	20,679
		1917	—	17,906

The number of stillbirths notified by midwives was 402, which is at the rate of 3·19 per cent. of births attended.

MEDICAL ASSISTANCE.

The number of applications made by midwives for medical assistance where complications had arisen were 1,396, compared with 1,618 in 1916.

PUERPERAL FEVER.

The number of cases of Puerperal Fever notified to the Medical Officer of Health during the year was 33, of which 16 proved fatal. This gives a death-rate of 0·90 per 1,000 births in the City.

Twenty-one cases were removed to hospital, viz.:—1 to Brownlow Hill Infirmary; 4 to Mill Road Infirmary; 14 to Walton Institution; 1 to Toxteth Infirmary, and 1 to the Royal Infirmary.

After the usual enquiries were made, 26 cases (of which 14 died) were found to have occurred in the practice of midwives. One midwife had three cases.

OPHTHALMIA NEONATORUM.

INFLAMMATION OF THE EYES OF THE NEWLY-BORN.

The following figures give some details as to the sources of information and character of the cases dealt with during the year:—

Total number of cases brought to the notice of the department, 546.

(1)	Reported by Midwives	...	...	...	...	435
(2)	do.	Doctors and Eye Hospital	...	...	...	53
(3)	do.	Female Inspectors	...	...	...	55
(4)	do.	in other ways	...	...	...	3

The above cases consisted of:—

(1)	Mild cases	...	...	...	...	...	355
(2)	Severe cases	...	...	...	...	...	148
(3)	Under private treatment	...	...	...	...	...	13
(4)	Not Ophthalmia Neonatorum	...	...	...	...	...	30

The satisfactory results of this work are shown by the following figures:—

Number of cases treated in their homes	310
Do. do. sent to hospital as out-patients ...	158
Do. do. admitted to hospital	48

As indicating the persistence of maternal infection or a re-infection, it is interesting to note that in 61 cases previous children in the family had been similarly affected.

Number of cases cured	464
Do. do. still under treatment at 31/12/17 ...	27
Do. do. sight of both eyes badly affected ...	—
Do. do. sight of one eye slightly impaired ...	11
Do. do. totally blind	1
Do. do. not requiring visits of inspector ...	13

TUBERCULOSIS.

Four of the medical staff joined the forces and the work is at present undertaken by two male and one female doctors. This reduction in staff combined with the increasing number of cases needing examination has made it exceptionally difficult to cope with the work.

The scheme in operation makes provision for all forms of Tuberculosis and applications for examination and treatment are received from various sources, viz. :—

- (a) From the patients themselves, or through their medical attendants;
- (b) From the Medical Boards formed by the Ministry of National Service;
- (c) From the Insurance Commission or Local Pensions Committee in the cases of discharged men;
- (d) From the voluntary agencies in the City;
- (e) From the School Medical Officers.

INCREASE IN NUMBER OF NOTIFICATIONS.

Year.	Phthisis.	Other Tubercular Diseases.	Total.
1915	2220	826	3046
1916	2702	643	3345
1917	3778	639	4417

The above statements of notifications for the last three years include those received on behalf of Discharged Soldiers.

INCREASE IN NUMBER OF DEATHS.

Year.	Phthisis.	Other Tubercular Diseases.	Total.
1915	1299	367	1666
1916	1254	382	1636
1917	1357	400	1757

Increase in number of persons examined by the Tuberculosis Officers on applications for Sanatorium Benefit.

Year.	Total persons examined.
1915	1751
1916	2124
1917	4068

The number of discharged men suffering from tuberculosis (caused or aggravated by military service) referred by the Insurance Commissioners and the Local Pensions Committee is increasing:—

NAVY AND ARMY CASES.

Year.	Phthisis.	Other Tubercular Diseases.	Total.
1915	51	1	52
1916	176	2	178
1917	333	7	340

The arrangement made towards the end of 1916, at the instance of the Local Government Board, for all cases of suspected Tuberculosis being referred by the recruiting authorities to the Tuberculosis Officer, for speial examination, was continued by the Ministry of National Service. The number of cases so referred showed an appreciable advance upon the previous year and owing to the doubtful character of many of the cases, extreme care, involving considerable time, was neessary in coming to a conclusion; Medieal Boards were urged to avail themselves of the special facilities provided by the Corporation with a view to preventing tuberculous men gaining admission into the Army or Navy with the risk of consequent breakdown and infection to others. The number of eases referred from 22nd September, 1916 to 31st December, 1916, was 87; the number of cases examined during 1917 was 1,280. The examinations resulted in many unsuspected cases of Tuber-eulosis being brought to light and the provisional diagnosis of the Medical Boards was confirmed in approximately 75 per cent. of the eases referred.

Up to the end of 1916 all discharged sailors and soldiers for whom sanatorium treatment was required had been referred, as regards

insured persons, to the Insurance Committee, and as to non-insured persons to the Corporation. During the year revised arrangements were made by the National Health Insurance Commission, acting on behalf of the central Departments concerned, whereby every discharged man, whether insured or not, suffering from Tuberculosis caused or aggravated during military service, was referred to the Insurance Committee for treatment. In addition to the cases referred by the Commission, prior to or immediately following discharge, a large number of cases are reported by the local Pensions Committee following examination by Medical Referees appointed by them.

The number of cases of discharged men dealt with for the first time during 1917 was 345, as compared with 178 during 1916 and 52 during 1915. From this it will be observed that the numbers are increasing, and, in spite of the precaution taken to prevent tuberculous men entering the Army, the number is likely to increase. Under the arrangements made by the Insurance Commission special grants of a liberal character are available in connection with discharged men provided institutional treatment is promptly afforded. It has not been possible to afford the immediate treatment required, owing to the unfortunate delays in the completion of Fazakerley Sanatorium, although every effort has been made during the year to obtain accommodation at sanatoria belonging to other authorities.

Many of the discharged men are in an advanced and very infectious stage of the disease and it is most desirable, alike in their own interests, as well as those of the community, that provision should be made for this type of case.

Non-pulmonary cases of disease in children are dealt with by the Liverpool Children's Infirmary and by the several institutions co-operating with the Invalid Children's Association.

Cases of Tuberculosis continue to be brought to the attention of the Tuberculosis Officer at a fairly early stage. This condition is no doubt due to the medical examination of practically the whole of the male population of military age. Of late, however, a number of applications have

been received only when the disease was well established, a circumstance due to the desire of the patients to remain at work and take as full advantage as possible of the high wages prevailing, coupled with the increasing number of discharged men in whom the disease is well marked. The total cases receiving institutional treatment during the year numbered 1,706. Details of the cases under treatment are shown in Table No. 2, which also gives particulars relating to discharges and deaths and cases remaining under treatment at the end of the year.

The result of treatment is shown in Table No. 3, from which it appears that out of a total of 1,216 cases discharged, 935 cases or 77 per cent. showed an improvement, 146 cases of $12\frac{1}{4}$ per cent. showed no improvement and in 132 cases, or nearly 11 per cent., death occurred.

The average duration of institutional treatment in respect of each case discharged during the year was 138 days, and the number of cases remaining under treatment on December 31st, 1917, was 490, as compared with 401 twelve months previously.

The domiciliary visiting of nurses who have had practical experience at a tuberculosis dispensary has been found of great value. During the year 2,300 visits have been made at the homes of the patients by the three nurses attached to the dispensaries in order to see that the instructions are being carried out. The services of the nurses attached to the Queen Victoria District Nursing Association have also been fully utilised.

Owing to the insufficiency of institutional accommodation and the consequent delay in the admission of patients it has been necessary to grant such necessaries as are considered ancillary to treatment to insured persons and their dependants on a fairly liberal scale. As additional accommodation is provided, the cost of this item at present very considerable, will be reduced.

All persons upon leaving sanatoria are referred to their doctors in order that continuity of treatment may be obtained and are examined in due course by the Tuberculosis Officer as a matter of after-care and

kept under observation. With the return to normal conditions an expansion of this branch of the work of the department will be necessary.

It is hoped that at a very early date arrangements may be made with the King Edward VII Welsh National Memorial for the admission of 50 to 100 cases. One condition, however, in reference to these cases is that they shall all be in the earliest stage of the disease.

The provision of additional sanatorium accommodation is a matter of pressing importance. It was hoped, before another report was issued, that the accommodation at Fazakerley would have been available, but many difficulties have been experienced, with the result that the building is still incomplete. In order to meet the increasing demand every opportunity has been taken to obtain such additional beds as were available in institutions outside the City, but apart from the undesirability of sending cases to a great distance the number secured is small and inadequate. Some cases have sought relief by applying for admission into Poor Law Institutions, from which after varying periods they are discharged to return to their homes where they continue to serve as foci of infection. The waiting list of persons recommended for institutional treatment is still very high, and as the cases of discharged men are coming forward in increasing numbers the delay in admission will be accentuated and the urgency of the need of accommodation of the special character required in the treatment of Tuberculosis will become more pronounced. In view of this every effort should be made to complete Fazakerley Sanatorium at the earliest possible date.

TABLE No. 1.

STATEMENT SHEWING PERSONS EXAMINED AND CASES UNDER TREATMENT DURING THE YEAR 1917.

PERSONS EXAMINED			Treatment first recommended to Persons shewn in Col. 3			Total Cases under treatment during course of year				
Total Persons Examined (1)	Found to be Non-T.B. (2)	Recom- mended for treatment (3)	Dom. (4)	Disp. (5)	Instn. (6)	Total. (7)	Dom. (8)	Disp. (9)	Instn. (10)	Total. (11)
INSURED PERSONS—										
Men	1001	187	814	569	77	814	978	147	536	1,661
Women	243	11	232	177	20	232	338	71	167	576
Total	1244	198	1046	746	97	1046	1316	218	703	2,237
DEPENDANTS, ADULTS										
Men	17	1	16	12	2	16	15	3	15	33
Women	238	12	226	179	34	226	397	84	122	603
CHILDREN—										
Boys	388	51	337	135	56	337	319	141	299	759
Girls	348	31	317	158	55	317	417	127	293	837
Total	991	95	896	484	147	265	896	1148	355	2,232
NON-INSURED										
	332	51	281	37*	144	100	281	58*	288	274
TOTALS	2,567	344	2,223	1,267	494	462	2,223	2,522	861	1,706
REFERRED FROM MEDICAL BOARDS, ETC....										
	1,501	375								
	4,068	719								

* Unofficial.

TABLE No. 2.
INSTITUTIONAL TREATMENT (ADMISSIONS AND DISCHARGES).

	DEPENDANTS.						TOTALS	
	INSURED PERSONS		Adults.		Children.			
	M.	F.	M.	F.	M.	F.		
Under treatment at beginning of year ...	93	46	8	20	90	76	68	401
Admitted during 1917	443	121	7	102	209	217	206	1305
TOTAL	536	167	15	122	299	293	274	1706
Discharged and deaths during 1917	399	119	11	94	216	193	193	1216
Under treatment at end of year	146	48	4	28	83	100	81	490

TABLE No. 3.

RESULTS OF TREATMENT IN CASES DISCHARGED FROM INSTITUTIONS
TOGETHER WITH DEATHS THEREIN.

	Improved (1)	Not Improved. (2)	Died. (3)	Totals. (4)
INSURED PERSONS—				
Men	280	58	52	390
Women	94	15	10	119
	<hr/>	<hr/>	<hr/>	<hr/>
Total	374	73	62	509
DEPENDANTS, ADULTS—				
Men	7	3	1	11
Women	77	10	7	94
,, CHILDREN—				
Boys	183	19	14	216
Girls	153	20	20	193
	<hr/>	<hr/>	<hr/>	<hr/>
Totals	420	52	42	514
NON-INSURED	141	24	28	193
	<hr/>	<hr/>	<hr/>	<hr/>
TOTALS ...	935	146	132	1216
	<hr/>	<hr/>	<hr/>	<hr/>
	76·89 %	12·25 %	10·86 %	

VENEREAL DISEASES.

Of recent years there has been a growing recognition by all persons associated in any way with public health problems of the ravages and far-reaching consequences of venereal diseases.

Difficulty has frequently been encountered by the reluctance, even on the part of otherwise benevolent people, to provide for the treatment of venereal diseases, because it was thought that vice would thereby be freed from its penalties. The reality of this sentiment is evidenced by the rules of certain medical charities, which preclude from relief sufferers from venereal diseases, a procedure as harsh and unfortunate as the exclusion of the expectant unmarried mother from the help of a maternity hospital.

The end which, under the new Regulations, it is desired to achieve is to ensure the early diagnosis and early treatment of all forms of venereal disease, under such conditions and in such a manner that the patient will not be repelled by apprehensions that the nature of his malady will be known to any besides those engaged in restoring him to health. Although measures of diagnosis and of treatment alone are contemplated, yet it must be remembered that, incidentally, these will also involve prevention; the public injury done by the professional prostitute or the diseased profligate will be reduced by removing the factor of contagious disease, and although these form but a small proportion of the total number of patients, it is not less true that the treatment and cure of any patient will also have its preventative effects.

It will be understood that 75 per cent. of the cost of the scheme which the City Council are required to put into operation will be defrayed by the Local Government Board.

In order to bring about really successful results, patients must be encouraged to go for treatment where they will not be singled out or conspicuous. This means that the existing medical charities or other

places of medical relief to which sufferers from all other ailments go in Liverpool must primarily be concerned in assisting in this work. Obviously any establishment provided by the Corporation for venereal diseases exclusively would fail at present, because the fact of going to it would proclaim the nature of the patient's illness.

The report of the City Bacteriologist on still-births shows that syphilis, in a large proportion of cases, was the cause of the still-birth.

In all, 300 examinations of still-births were made, and all cases were examined seriatim as received, no selection being made. Excluding the doubtful cases, 45 out of 300 examined (15 per cent.) showed positive evidences of syphilitic infection.

The value of the examinations of still-births is evidenced by the results obtained in persuading the mothers, and in some cases the fathers, to undergo treatment at one or other of the Corporation Venereal Disease Centres; this is mainly done by the Health Staff, but in some cases the midwife in attendance has been able to influence the mother.

The question of Educational propaganda is of very considerable importance, and certainly requires quite as discreet handling as any of the other aspects of the subject.

It is a subject quite apart from ordinary moral instruction, and should in every case be under medical supervision.

The question of the detention of persons whilst suffering from venereal disease in a readily communicable form, is a matter of much importance, and there is a growing feeling that restrictions are desirable upon diseased persons whose habits of life are such as to disseminate venereal disease.

A special Memorandum on the Scheme for the Treatment of Venereal Diseases under the new Regulations has been issued by the Medical Officer. In this report the work done at the various treatment centres is referred to.

CITY HOSPITALS AND THE WAR.

The difficulties of finding accommodation for patients suffering from infectious sickness who require isolation in hospital considerably increased during the year, additional demands having been made upon hospital space, owing to the increase in the prevalence of Scarlet Fever, and Measles. Much closer attention has been paid to this latter disease since it became compulsorily notifiable, and parents are realising that isolation of this form of sickness lessens the great destruction of life which results from it.

The number of measles patients whom it was found possible to isolate in 1917 was in excess of the number removed to hospital in previous years, but even so, accommodation could only be found for a small proportion of the cases notified.

The entry of the United States of America into the war was not without its effect upon the question of hospital accommodation. It was obvious that large bodies of troops landing in Liverpool would inevitably, from time to time, have cases of infectious sickness for whom hospital accommodation would be necessary; recently the United States authorities have made provision to supplement that made by the Corporation for the accommodation of cases of this character.

It will be recalled that at an early period of the War two Institutions were approaching completion, one was the Fazakerley Sanatorium, and the other the Sparrow Hall Hospital, which was primarily intended for Smallpox, but, as in the case of other hospital institutions, its use would be determined by the special circumstances regarding infection in the City and Port.

In September, 1916, an inquiry was received from the Military Authorities as to whether "if the necessity for beds for sick and

wounded soldiers should become extremely urgent, it would be possible to secure the use of Sparrow Hall Hospital." In reply the Town Clerk stated that the Corporation would be prepared to hand over the hospital, conditional upon the Military authorities furnishing it, and, in the event of the Corporation requiring the premises for the purposes for which they were originally provided, vacating the hospital within 14 days from receipt of notice to that effect from the Town Clerk. The latter condition was subsequently reduced to seven days, at the request of the Local Government Board.

The hospital was eventually handed over to the Military Authorities on the 21st February, 1917.

In October, 1917, it became apparent that a serious increase in Scarlet Fever might be apprehended, and pressure was brought to bear upon the Military Authorities to proceed with their part of the undertaking, viz., the furnishing, because, if that were not done, it was perfectly obvious that in the event of the Corporation requiring the building for the isolation of the infectious sick the Hospitals Committee would experience great difficulty in procuring the necessary furniture and equipment, whilst, on the other hand, the Military Authorities already had the furniture, etc., stored at Burscough.

On December 17th a Conference between representatives of the Military Authorities and representatives of the Port Sanitary and Hospitals Committee was held at the Town Hall.

At this conference various proposals were made, and a suggestion of the Medical Officer of Health was finally adopted, viz., that the Hospital should be lent to and administered by the Military Authorities upon the condition that so far as accommodation permitted, they received into it, all case of infectious disease arising in connection with any part of H.M. Services, including Colonial Troops, U.S. Troops, Labour Battalions, Transport Services, or any other military unit, for which the Local Authority would otherwise be responsible, excluding females, nurses, etc.

Some divergence of opinion on the part of those who attended the conference arose as to the precise terms of the arrangement, those in

military charge of the Hospital contending that the arrangement applied only to the reception of soldiers, on the ground that great difficulty would arise in adjusting financial questions if naval ratings and others of H.M. Forces were admitted. On the other hand, it was pointed out that unless the agreement were adhered to there were no other means of providing for the accommodation of these services, and the anomalous position would arise that they would have to go to the workhouse whilst scores of beds remained empty at Sparrow Hall. Thanks largely to the good offices of Colonel Coates, these difficulties were adjusted, and the arrangement, as approved at the Town Hall conference, received the sanction of the War Office, and has proved a most valuable adjustment in a time of great emergency.

With regard to the Sanatorium the position is less satisfactory. Here a building has remained on the verge of completion for over two years, which according to the terms of the contract would have been completed on or before September 29th, 1915. Obstacles and difficulties without end have arisen in regard to its completion, whilst the urgent need for its use has steadily increased.

These difficulties have formed the subject of many interviews, and a volume of correspondence, the net result being that, quite apart from the increasing number of civilians suffering from Tuberculosis who, owing to lack of the necessary accommodation have been compelled to remain in their homes, many soldiers and sailors invalided from the Army and Navy and suffering from Tuberculosis developed whilst on service, have had to return to homes many of them actually on the scheduled list of houses unfit for human habitation. Bearing in mind that Tuberculosis is a communicable disease, some increase in the number of cases will not be a matter of surprise, but an increase so large as is shewn on the table (see page 18), must arouse other feelings than surprise.

To the steadily growing claims of the civil population must be added those of members of H.M. Forces discharged on account of tuberculosis. No one will dissent from the view that these, like the wounded soldier, are entitled to every possible consideration; indeed, for the tuberculous soldier there is even a stronger case to be made out than for the wounded,

because he is suffering from a communicable disease, and is returning to conditions which not only endanger those with whom he may live, but forbid any hope of improvement in his own case. It is very questionable whether the local Military Authorities have fully apprehended this view. With military assistance two parts of the Sanatorium were practically finished, and made use of temporarily for military convenience, the Nurses' block being allocated to lady clerks and typists, and the Children's block used as a storehouse for boots and clothing, an arrangement which appears to have fully met the local military needs, but which it may be feared was not helpful in securing co-operation to complete the whole building. Indeed, on June 7th, 1917, a letter addressed to the Town Clerk, in response to an application to the Ministry of Munitions for a building licence for the completion of the Sanatorium, stated that "the remaining buildings will not be required at present for military occupation and therefore, so far as the War Office is concerned, the work of completion should not be proceeded with." No military reasons, however, have been advanced as to why the Sanatorium should not be proceeded with, and it is difficult to resist the impression that the convenience of stores and typists was allowed to outweigh the necessities of the discharged soldier or his dependents.

It is important to recollect that the 1st Western General Hospital was wholly provided by the Corporation, its administrative block was constructed so as to admit of a large extension of the hospital proper, and the ample acreage did, and does still, afford every facility for hutments, pavilions, or any temporary structures of any kind essential to the administration of the establishment. Furthermore, the Corporation at the commencement of the war were, and have been since, willing and anxious to co-operate in every possible way in meeting military exigencies. If there are satisfactory explanations for the delays in regard to the Sanatorium, and for the opinion expressed that it ought not to be proceeded with, the Medical Officer has been unable to ascertain what they are. It will be admitted that the clerical work in connection with the military hospital is large and important and that the responsibility for stores is a heavy one, and the attractive simplicity of occupying adjacent buildings, which are vital to the administration of the

Sanatorium, for clerical and store purposes, would not be complained of, if there were no other alternative and if the occupation did not result in depriving the pensioners and their dependants of prospects of recovery.

Apart from the Hospitals Committee, which is the body charged with the duty of making provision for sanatorium treatment, there are many bodies deeply concerned in the question from the public health point of view, *e.g.*, the Insurance Commissioners, the Ministry of Pensions, the Local Government Board, the Health Committee of the City, and the Local Insurance Committee, and concerted action on the part of these bodies, which would result in their views being placed before the War Office, would no doubt be helpful in arriving at an early conclusion upon the subject.

Alternatively, a Conference at, say, the Local Government Board Offices, between representatives of the bodies concerned, would ensure a just consideration of the claims on the one hand of the discharged soldier and other sufferers for whom the Sanatorium was intended, and on the other hand, of the claims for the convenience of storage and of accommodation for lady clerks. If such a Conference could be arranged, it is improbable that the relatively trifling amount of military co-operation essential to the use of the building would be withheld. It would be made abundantly plain that the Corporation are, as heretofore, ready and anxious to give every possible help to meet the needs of those in charge of the Fazakerley Hospital.

INFECTIOUS DISEASE.

The following table shows the number and nature of cases of Infectious Disease coming under the notice of the Medical Officer of Health during the year 1917:—

YEAR—1917.	FEVER.		Smallpox.	Scarlet Fever.	Measles and German Measles.	Diphtheria and Membranous Croup	Puerperal Fever.	Erysipelas.	Cerebro-spinal Fever.	Poliomyelitis.	Ophthalmia Neonatorum.	Anthrax.	TOTAL.
	Typhus.	Enteric.											
January .....	...	6	...	127	672	72	1	29	4	...	60	...	971
February .....	...	8	2	111	711	62	—	31	4	1	35	...	965
March .....	...	3	...	75	1510	90	1	34	4	...	52	...	1769
April .....	...	5	...	87	1400	74	5	19	6	...	47	...	1643
May .....	...	3	...	121	1762	84	5	13	5	...	53	3	2049
June .....	...	6	...	126	1706	78	2	23	3	...	32	1	1977
July .....	...	2	...	144	539	54	1	16	1	...	34	2	793
August .....	...	6	...	123	218	69	4	31	4	1	39	...	495
September .....	...	2	...	263	171	128	1	36	1	...	38	...	640
October.....	...	6	...	362	86	140	4	51	...	...	56	...	705
November .....	...	6	...	407	150	148	6	52	1	...	40	...	810
December.....	1	1	...	331	305	118	3	48	1	2	30	1	841
TOTAL	1	54	2	2277	9230	1117	33	383	34	4	516	7	13658
Removed to hospital	1	47	2	1796	1184	922	21	151	32	1	48	7	4212

The number of patients removed to hospital includes those admitted to the general hospitals, as well as those admitted to the City infectious diseases hospitals.

The following Tables, prepared by the Medical Staff of each Hospital, show the number of patients, the nature of the illness, and the results at each of the six Hospitals during the year 1917:—

CITY HOSPITAL NORTH, NETHERFIELD ROAD.

Visiting Physician, Dr. R. I. RICHARDSON.

Resident Physician, Dr. T. H. DONOVAN.

DISEASES.	Remaining Dec. 31st, 1916.	Admitted during the year.	Transferred from other City Hospitals.	Total under Treatment during the year.	Transferred to Convalescent Hospital.	Transferred to other City Hospitals.	Discharged Cured.	Remaining at end of year.	Died within 48 hours of Admission.	Total Deaths.	Total Mortality per cent. of Admissions.
Scarlet Fever.	92	819	—	911	227	—	568	92	3	24	2·9
Typhus Fever.	—	1	—	1	—	—	1	—	—	—	—
Diphtheria ...	10	138	—	148	—	—	114	21	5	13	9·4
Measles.....	—	23	—	23	—	—	22	—	—	1	4·3
Whooping Cough.....	—	8	—	8	—	—	6	2	—	—	—
Other Diseases	—	14	—	14	—	2	10	2	—	—	—
Isolation and Observation Cases	5	25	—	30	—	—	19	10	—	1	4·0
Totals ...	107	1028	—	1135	227	2	740	127	8	39	3·8

CITY HOSPITAL SOUTH, GRAFTON STREET.

Visiting Physician, Dr. H. A. CLARKE.

Resident Physician, Dr. R. E. McBIRNIE.

DISEASES.	Remaining Dec. 31st, 1916.		'Transferred from other City Hospitals.	Total under Treatment during the year.	'Transferred to Convalescent Hospital.	Transferred to other City Hospitals.		Discharged Cured.	Remaining at end of year.	Died within 48 hours of Admission.	Total Deaths.	Total Mortality per cent. of Admissions.
	Admitted during the year.	Remaining Dec. 31st, 1916.				Transferred to other City Hospitals.	Transferred to other City Hospitals.					
Scarlet Fever.....	51	438	—	498	118	—	—	252	108	*1	11	2·5
Diphtheria	—	8	—	8	1	—	—	6	—	—	1	12·5
Measles	12	306	—	318	34	—	—	252	—	—	32	10·4
Whooping Cough...	—	32	1	32	—	—	—	29	—	—	3	9·3
Other Diseases.....	—	53	—	53	2	—	—	48	—	—	3	5·6
Isolation & Obser- vation Cases	2	14	—	16	1	—	—	5	10	—	—	—
 Totals	65	851	1	916	156	—	592	118	1	50	50	5·8

* Died within 24 hours of admission.

CITY HOSPITAL, FAZAKERLEY ANNEXE.*Visiting Physician, Dr. J. LLOYD ROBERTS.**Resident Physician, DR. E. G. FISHER.*

Diseases.		Remaining Dec. 31st, 1916.	Admitted during the year	Transferred from other City Hospitals.	Total under Treatment during the year.	Transferred to Convalescent Hospital.	Transferred to other City Hospitals.	Discharged Cured.	Remaining at end of year.	Died within 48 hours of Admission.	Total Deaths.	Total Mortality per cent. of Admissions.
Scarlet Fever.....	46	427	—	—	473	70	7	244	134	2	18	4·2
Enteric Fever	1	4	—	—	5	—	—	4	—	—	1	2·5
Diphtheria	44	13	—	—	57	—	—	57	—	—	—	—
Measles	25	396	—	—	421	—	18	393	2	—	8	2·0
Whooping Cough ...	1	24	—	—	25	—	9	16	—	—	—	—
Other Diseases.....	5	141	—	—	146	5	8	107	13	1	13	9·2
Isolation and Observation Cases	1	34	—	35	—	—	—	35	—	—	—	—
Totals	123	1039	—	1162	75	42	856	149	3	40	38	—

CITY HOSPITAL, DEYSBROOK, WEST DERBY.*Visiting Physician, Dr. W. J. ROBERTSON DUNN.*

Diseases.		Remaining Dec. 31st, 1916.	Admitted during the year	Transferred from other City Hospitals	Total under Treatment during the year	Transferred to Convalescent Hospital	Transferred to other City Hospitals	Discharged Cured	Remaining at end of year	Died within 48 hours of Admission..	Total Deaths	Total Mortality per cent. of Admissions
Scarlet Fever ...	57	85	336	478	—	7	358	112	—	—	1	1·1
Measles	—	186	72	258	—	5	227	—	—	4	26	14·0
Totals	57	271	408	736	—	12	585	112	4	27	9·9	—

CITY HOSPITAL, PARKHILL.*Medical Superintendent, Dr. W. CRANE.*

DISEASES.	Remaining Dec. 31st, 1916.		Admitted during the year.	Transferred from other City Hospitals	Total under treat- ment during the year.	Transferred to Convalescent Hospital	Transferred to other City Hospitals.	Discharged.	Remaining at end of year.		Died within 48 hours of Admission.	Total Deaths.	Total Mortality per cent. of Admissions.
Phthisis	184	464	—	—	648	—	1	385	183	—	79	17·0	

CITY HOSPITAL EAST, MILL LANE, OLD SWAN.*Visiting Physician, DR. H. A. CLARKE.**Resident Physician, DR. P. COTTER.*

DISEASES.	Remaining Dec. 31st, 1916.	Admitted during the year.	Transferred from other City Hospitals.	Total under Treatment dur- ing the year.	Transferred to Convalescent Hospital.	Transferred to other City Hospitals.	Discharged Cured.	Remaining at end of year.	Died within 48 hours of Admission.	Total Deaths.	Total Mortality per cent. of Admissions.
Scarlet Fever...	26	135	—	161	17	—	114	26	—	4	2·9
Enteric Fever..	—	2	—	2	—	—	2	—	—	—	—
Diphtheria	82	844	—	926	—	—	738	102	47	86	10·2
Measles	—	9	—	9	—	—	9	—	—	—	—
Wh'p'ng Cough	—	5	—	5	—	—	5	—	—	—	—
Other Diseases.	8	56	—	64	—	—	58	—	5	6	10·7
Isolation and Observation Cases.....	—	34	—	34	—	—	20	13	—	1	2·9
Totals.....	116	1085	—	1201	17	—	946	141	54	97	8·9

SANITARY ADMINISTRATION.

Number of applications to the Department for advice or assistance	...	...	...	...	...	...	...	...	13,962
Number of visits to premises where nuisances were complained of	...	...	...	...	...	...	...	...	19,595
Number of preliminary notices served on owners or occupiers to remedy nuisances	...	...	...	...	...	...	...	...	15,772
Number of references to other Departments	...	...	...	...	...	...	...	...	3,823
Number of notices served on owners or occupiers	...	...	...	...	...	...	...	...	44,528
,, re-inspections by District Inspectors	...	...	...	...	...	...	...	...	43,873
,, nuisances found not abated for which statutory notices were served	...	...	...	...	...	...	...	...	11,710

NOTICES ISSUED.

The number of preliminary notices issued was 30,665, and the number of statutory notices was 12,684.

RE-INSPECTION OF NUISANCES.

The number of nuisances referred to Prosecuting Inspectors for re-inspection was 31,034, and 49,349 visits were paid to re-inspect these nuisances.

EXAMINATION OF CELLARS AND CELLAR DWELLINGS.

Number of inspections of street cellars	...	...	...	...	7,896
,, inspections of court cellars	...	...	...	...	140
,, notices issued to cease letting or occupying	...	...	...	...	161

VISITS AND ENQUIRIES AT INFECTED HOUSES.

Number of visits and re-visits to Phthisis cases	5,894
,, enquiries re suspected Smallpox contacts	3,117
,, enquiries re suspected Typhus Fever contacts ...	49
,, other enquiries	218

The number of children excluded from attending school from houses where infectious sickness existed was 28,741.

EXTERMINATION OF RATS.

Number of rats caught within the City	11,001
,, rats sent to City Bacteriologist for examination ...	1,221

A large number of rats were also caught on ships and about the docks and warehouses by the Officers of the Port Sanitary Authority.

AMBULANCE AND DISINFECTING DEPARTMENT.

Number of cases of Infectious Disease removed to Hospital ...	4,392
,, rooms stripped and sprayed	9,601
,, rooms disinfected	29,676
,, articles (bedding, clothing, etc.), disinfected ...	216,704
,, articles destroyed and compensation paid ...	472

MORTUARIES.

Number of bodies deposited	602
--	-----

CREMATORIUM.

The Crematorium is situated in Anfield Cemetery, and was opened by the Liverpool Crematorium Company in the year 1896. When the Corporation became the Burial Authority for the City, the administration was taken over, in October, 1908, by the Crematorium Sub-Committee.

The number of cremations which have taken place since the opening is shown in the following table:—

1896.....	2	1908.....	32
1897.....	10	1909.....	46
1898.....	27	1910.....	37
1899.....	23	1911.....	50
1900.....	40	1912.....	52
1901.....	40	1913.....	66
1902.....	54	1914.....	49
1903.....	35	1915.....	53
1904.....	40	1916.....	58
1905.....	35	1917.....	62
1906.....	46		—
1907.....	34		891
			—

COMMON LODGING HOUSES.

Number of houses on the Register, 31st December, 1917	...	247
,, lodgers for which these houses provide	...	9,479
,, houses for women lodgers	...	23
,, lodgers for which these houses provide	...	754
,, informations laid against keepers for offences against the Bye-Laws	...	10
Number of visits made during the day	...	8,568
,, visits made during the night	...	296

HOUSES LET IN LODGINGS.

Number of houses on the Register, 31st December, 1917	...	16,635
,, day visits	...	104,613
,, night visits	...	21,746
,, informations laid for overcrowding	...	533
,, convictions for overcrowding	...	508

CANAL BOATS.

Number of boats on the register	...	...	...	...	...	455
,, inspections	...	...	...	...	...	5,063
,, boats on which contraventions of the Act occurred						50
,, notices to owners and masters	...	...	...	...	...	54
,, informations laid	...	...	...	...	...	1
.. convictions	...	...	...	...	...	1

Administration of the Factory and Workshop Act, 1901, in
connection with

FACTORIES, WORKSHOPS, WORKPLACES & HOMEWORK.

The following Tables are prepared by request of the Secretary of State :—

1.—Inspection of Factories, Workshops and Workplaces.

Including Inspections made by Sanitary Inspectors.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions.
Factories	311	101	—
(Including Factory Laundries.)			
Workshops	5,555	470	—
(Including Workshop Laundries.)			
Workplaces	1,293	166	—
(Other than outworkers' premises included in Part 3 of this Report.)			
Total	7,159	737	—

2.—Defects Found in Factories, Workshops and Workplaces.

Particulars.	Number of Defects.			Number of Prosecutions.
	Found.	Remedied	Referred to H.M. Inspector.	
<i>Nuisances under the Public Health Acts :—*</i>				
Want of cleanliness	383	383	—	—
Want of ventilation	12	12	—	—
Overcrowding	—	—	—	—
Want of drainage of floors	—	—	—	—
Other nuisances	224	224	—	—
+Sanitary accommodation { insufficient	18	18	—	—
{ unsuitable or defective ...	160	160	—	—
{ not separate for sexes.. ...	13	13	—	—
<i>Offences under the Factory and Workshop Act :—</i>				
Illegal occupation of underground bakehouses (S. 101)	—	—	—	—
Breach of special sanitary requirements for bakehouses (SS. 97 to 100)	—	—	—	—
Other offences	—	—	17	—
(Excluding offences relating to outwork which are included in Part 3 of this Report).				
Total	810	810	17	—

* Including those specified in Sections 2, 3, 7 and 8, of the Factory and Workshop Act as remediable under the Public Health Acts.

† Section 22 of the Public Health Act Amendment Act, 1890, has been adopted by the City Council. The standard of sufficiency and suitability of sanitary accommodation for persons employed in Factories and Workshops is in accordance with the Sanitary Accommodation Order of 4th February, 1903.

3.—Home Work.

OUTWORKERS' LISTS, SECTION 107.

* Several Employers give out work of more than one of the classes specified in column 1. The lists are included among those in column 2 against the principal class only, but the outworkers are assigned in columns 3 and 4 into their respective classes.

4.—Registered Workshops.

5.—Other Matters.

Workshops on the Register (S. 131) at the end of the year.	Number.	Class.	Number.
Workshops	2,925	Matters notified to H.M. Inspector of Factories:—	
		Failure to affix Abstract of the Factory and Workshop Act (S. 133)	15
Cooking Kitchens of Restaurants	370	Action taken in matters referred by (Notified by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (S. 5) ...	31
Bakehouses	845	Reports (of action taken) sent to H.M. Inspector	31
Other		Other	2
		Underground Bakehouses (S. 101):—	
		Certificates granted during the year ...	...
		In use at the end of year ...	...
Total number on Register ...	4,140		120

INSPECTION OF SLAUGHTER-HOUSES, &c.

Number of visits made by Meat Inspectors to slaughterhouses	4,941
,, visits made by Meat Inspectors to butcher's shops	59,869
,, visits made by Fish and Fruit Inspectors to fish and fruit shops ...	59,938

Special visits were also paid to premises of Food Hawkers, Jam and Pickle Factories and Knackers Yards.

DAIRIES, COWSHEDS, MILKSHOPS, &c.

Number of inspections of cowsheds	3,976
,, inspections of dairies and milkshops	6,300
,, inspections of ice cream premises	1,030
,, cowsheds in the City	314
,, cows licensed to be kept	5,260

PIGGERIES.

Number of applications for licenses to keep pigs	106
,, visits to piggeries	1,002
,, pigs licensed to be kept	2,490

TUBERCULOSIS AND THE MILK SUPPLY.

Number of visits to Town cowsheds	64
,, cases notified by owners	11
,, cows examined	896
Number of visits to farms	19
,, cowsheds examined	53
,, cows examined	898

EXAMINATION OF HORSES FOR HUMAN FOOD

During the year two shops were opened in Liverpool under the Horse Flesh Act of 1889, for the sale of horse beef.

Premises have been set apart in Carruthers Street by the Liverpool Animal Slaughtering Company for the slaughter of the horses and the dressing of the carcases.

All the animals deemed suitable for human food are first submitted to Veterinary examination, and after slaughter the carcases are examined by the Inspectors of the Medical Officer of Health's Staff, and in many cases by the Veterinary Inspector also.

225 animals were examined, of which 152 were passed for human food, and 73 animals and carcases condemned.

FOOD CONTROL WORK.

A very large amount of the time and attention of the Officers of the Department has been taken up in reference to the rationing of food supplies under the Food Controller's Orders, as well as the supervision of the premises of firms engaged in carrying out Army food contracts.

Detailed memoranda relating to the work carried out and the action taken have been and will continue to be submitted from time to time to the Committee, dealing with the subject, and in due course the salient features will be embodied in a report to the Council.

A

The following tables I, II, III, IV, and marked also A, B, C, D, are prepared pursuant to an instruction of the Local Government Board.

CITY OF LIVERPOOL.

TABLE I.

VITAL STATISTICS OF WHOLE DISTRICT DURING 1917 AND PREVIOUS YEARS.

YEAR.	Population estimated to Middle of each year.	BIRTHS.			TOTAL DEATHS REGISTERED IN THE DISTRICT.		TRANSFERABLE DEATHS. ‡		NETT DEATHS BELONGING TO THE DISTRICT.			
		Uncor-rected Number.	Nett. Number.	Rate.	Number.	Rate.	of Non-residents registered in the District.	of Residents not registered in the District.	Under 1 year of age. Number.	Rate per 1000 Nett Births.	At all ages. Number.	Rate.
1	2	3	4	5	6	7	8	9	10	11	12	13
1912.....	752021	22233	22164	29·4	14008	18·6	639	407	2781	125	13771	18·3
1913.....	756553	22627	22555	29·8	13980	18·4	673	401	2987	132	13658	18·0
1914.....	767992	23143	23065	30·0	15320	19·9	718	444	3219	139	15046	19·5
1915.....	772595	21653	21586	27·9	14585	18·9	676	569	2866	133	14478	18·7
1916.....	777247	20756	20679	26·6	14119	18·1	834	658	2421	117	13943	17·9
1917.....	781948	17931	17906	22·9	13144	16·7	804	753	2071	115	13093	16·7

NOTES.—This Table is arranged to show the gross births and deaths registered in the district during the calendar year, and the births and deaths properly belonging to it with the corresponding rates. The rates should be calculated per 1,000 of the estimated gross population as stated in Column 2, without the use of the standardising factor for the district given in the Annual Report of the Registrar-General. In a district in which large Public Institutions for the sick or infirm seriously affect the Statistics, the rates in Columns 5 and 13 may be calculated on a nett population, obtained by deducting from the estimated gross population the average number of inmates not belonging to the district in such institutions.

* In Column 6 are to be included the whole of the deaths registered during the calendar year as having actually occurred within the district, but excluding the deaths of Soldiers and Sailors that have occurred in hospitals and institutions in the district. Information as to the number and causes of such deaths should, however, be given in the text of the report. (See Table D² in Appendix.)

In Column 12 is entered the number in Column 6, corrected by subtraction of the number in Column 8 and by addition of the number in Column 9. Deaths in Column 10 are similarly corrected by subtraction of the deaths under 1, included in the number given in Column 8, and by addition of the deaths under 1 included in the number given in Column 9.

‡ "Transferable Deaths" are deaths of persons who, having a fixed or usual residence in England or Wales, die in a district other than that in which they resided. The deaths of persons without fixed or usual residence, e.g., casuals, are not included in Columns 8 or 9, except in certain instances under 3 (b) below. In Column 8 the number of transferable deaths of "non-residents" are deducted, and in Column 9 the number of deaths of "residents" registered outside the district are added in calculating the net death-rate of the district.

The following special cases arise as to Transferable Deaths:—

(1) Persons dying in Institutions for the sick or infirm, such as hospitals, lunatic asylums, workhouses, and nursing homes (but not almshouses) must be regarded as residents of the district in which they had a fixed or usual residence at the time of admission. If the person dying in an Institution had no fixed residence at the time of admission, the death is not transferable. If the patient has been directly transferred from one such institution to another, the death is transferable to the district of residence at the time of admission to the first Institution.

(2) The deaths of infants born and dying within a year of birth in an Institution to which the mother was admitted for her confinement should be referred to the district of fixed or usual residence of the parent.

(3) Deaths from violence are to be referred (a) to the district of residence, under the general rule; (b) if this district is unknown, or the deceased had no fixed abode, to the district where the accident occurred, if known; (c) failing this, to the district where death occurred, if known; and (d) failing this, to the district where the body was found.

Area of District in acres
(land and inland water)
21,219.

Total population at all ages.....753,353 At Census
of
Total families or separate occupiers ...153,307 1911.

B

TABLE II.
CITY OF LIVERPOOL.
Cases of Infectious Disease notified during the Year 1917.

NOTIFIABLE DISEASE.	At all Ages.	NUMBER OF CASES NOTIFIED.						
		At Ages—Years.						
		Under 1	1 to 5.	5 to 15.	15 to 25.	25 to 45.	45 to 65.	65 and upwards.
Small-pox ...	... 2	...	...	...	...	2	...	...
Cholera ...	... 3	...	...	...	...	...	...	...
Plague ...	... 3	...	...	...	...	...	...	...
Diphtheria (including Membranous Croup) ...	... 1117	12	351	595	113	43	2	1
Erysipelas ...	... 383	12	13	27	50	111	116	54
Scarlet fever ...	... 2277	24	599	1429	159	59	6	1
Typhus fever ...	... 1	...	...	...	...	1	...	...
Enteric fever ...	... 54	...	2	17	10	20	5	...
Relapsing fever ...	... 3	...	...	...	...	...	...	...
Continued fever ...	... 3	...	...	...	...	...	...	...
Puerperal fever ...	... 33	...	...	...	8	25	...	...
Cerebro-Spinal Meningitis ...	... 34	6	11	11	3	3	...	...
Poliomyelitis ...	... 4	...	3	1	...	...	...	...
Ophthalmia Neonatorum ...	... 516	516	...	...	...	...	...	...
Pulmonary Tuberculosis ...	... 3445	3	48	570	665	1663	453	43
Tuberculosis other than Pulmonary ...	... 632	15	131	255	142	70	14	5
Anthrax ...	... 7	...	...	...	1	3	3	...
Measles and German Measles ...	... 9230	652	4824	3377	264	96	17	...
 Totals ...	... 17735	1240	5982	6282	1415	2096	616	104

City Hospital North, Everton District.

„ „ South, Toxteth „

„ „ East, West Derby „

„ „ Fazakerley Annexe, Fazakerley District.

„ „ Park Hill Sanatorium, Toxteth District

} All within the City.

Deysbrook Hospital, West Derby Rural, Outside the City.

All the above Institutions are provided by the Corporation of Liverpool.

The Corporation also have at their disposal 10 beds in the David Lewis Northern Hospital, and 40 beds in Walton Institution.

TABLE III.
CITY OF LIVERPOOL.
Causes of, and ages at, Death during the Year 1917.
(See notes at back.)

C

Causes of Death.	NETT DEATHS AT THE SUBJOINED AGES OF "RESIDENTS" WHETHER OCCURRING WITHIN OR WITHOUT THE DISTRICT (a).										Total Deaths whether of "Residents" or "non-Residents" in Institutions in the District (b).
	All ages.	Under 1 year.	1 and under 2 years.	2 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.	65 and upwards.		
1	2	3	4	5	6	7	8	9	10	11	
All causes	12805	1969	944	782	670	548	1782	3068	3042	5196	
Certified (c)											
Uncertified	288	102	8	18	13	4	9	61	73	5	
1. Enteric Fever	15	—	—	—	—	6	5	4	—	15	
2. Small-pox	1	—	—	—	—	—	1	—	—	—	
3. Measles	436	81	186	157	12	—	—	—	—	126	
4. Scarlet Fever	71	1	10	30	26	—	3	1	—	61	
5. Whooping Cough	132	33	53	42	4	—	—	—	—	14	
6. Diphtheria and Croup.	143	8	22	61	48	2	1	—	1	124	
7. Influenza	55	1	1	—	3	4	11	19	16	12	
8. Erysipelas	14	4	—	—	—	1	3	2	4	8	
9. Phthisis (Pulmonary Tuberculosis) ...	1357	8	7	16	89	227	589	386	35	635	
10. Tuherculous Meningitis.	148	18	19	38	48	14	8	3	—	76	
11. Other Tuherculous Diseases	252	24	26	42	68	33	30	24	5	174	
12. Cancer, malignant disease.	747	—	1	1	—	5	118	393	229	319	
13. Rheumatic Fever	44	—	—	2	11	4	9	13	5	20	
14. Meningitis (See note (d))	149	36	29	31	31	8	10	3	1	47	
15. Organic Heart Disease.....	900	2	3	—	27	36	135	368	329	271	
16. Bronchitis	1445	160	74	37	16	15	81	461	601	436	
17. Pneumonia (all forms)	1530	269	268	175	108	57	189	304	160	456	
18. Other diseases of Respiratory organs	145	10	6	3	6	6	32	51	31	52	
19. Diarrhoea and Enteritis. (See note (e))	410	307	103	—	—	—	—	—	—	144	
20. Appendicitis and Typhlitis	38	—	—	3	11	10	5	8	1	27	
21. Cirrhosis of Liver	43	—	—	—	—	—	9	26	8	19	
21a. Alcoholism	21	—	—	—	—	—	9	11	1	15	
22. Nephritis and Bright's Disease	330	3	3	8	6	8	70	150	82	133	
23. Puerperal Fever	16	—	—	—	—	4	12	—	—	12	
24. Other accidents and diseases of Pregnancy and Parturition	25	—	—	—	—	5	20	—	—	16	
25. Congenital Debility and Malformation, including Premature Birth	784	724	44	13	3	—	—	—	—	216	
26. Violent Deaths, excluding Suicide ...	439	36	14	50	70	34	92	86	57	273	
27. Suicide	29	—	—	—	—	1	12	10	6	5	
28. Other Defined Diseases	3295	342	82	89	93	72	327	765	1525	1479	
29. Diseases ill-defined or unknown	79	4	1	2	3	—	10	41	18	16	
Totals	13093	2071	952	800	683	552	1791	3129	3115	5201	
Sub-Entries included in above figures—											
Cerebro-Spinal Meningitis	23	4	4	5	5	3	2	—	—	26	
Poliomyelitis	3	—	3	—	—	—	—	—	—	2	
*Typhus Fever	—	—	—	—	—	—	—	—	—	—	
*Anthrax	1	—	—	—	—	—	1	—	—	1	
*Pneumonia	796	55	72	56	67	55	159	224	108	253	

* Sub-Entries should here be made for other deaths which it is desirable to distinguish, on account of their administrative importance or special interest (e.g., any deaths from Anthrax, Typhus or Glanders, which have been included under 28, Other Defined Diseases; or deaths from pneumonia other than broncho-pneumonia which have been included under 17, Pneumonia all forms).

NOTES TO TABLE III.

The classification and numbering of Causes of Death are those of the "Short List" on page XXV. of the Manual of the International List of Causes of Death, which has been consulted and followed in all cases of doubt.

- (a) All "Transferable Deaths" of residents, *i.e.* of persons resident in the District who have died outside it, are *included* with the other deaths in Columns 2-10. Transferable deaths of non-residents, *i.e.*, of persons resident elsewhere in England and Wales who have died in the District, are in like manner *excluded* from these columns. For the precise meaning of the term "transferable deaths" see footnote to Table I.

The total deaths in Column 2 of Table III. equal the figures for the year in Column 12 of Table I.

- (b) All deaths occurring in institutions for the sick and infirm situated within the district, whether of residents or of non-residents, are entered in the last column of Table III.
- (c) All deaths certified by registered Medical Practitioners and all Inquest cases are classed as "Certified"; all other deaths are regarded as "Uncertified."
- (d) Exclusive of "Tuberculous Meningitis" (10), but inclusive of Cerebro-Spinal Meningitis.
- (e) Title 19 has been used for deaths from Diarrhoea and Enteritis of children under 2 years of age. (In the "Short List" deaths from Diarrhoea, and Enteritis under 2 years are included under Title 19; those at 2 years and over being placed under Title 28.)

TABLE IV.
CITY OF LIVERPOOL.
INFANT MORTALITY DURING THE YEAR 1917.

Nett Deaths from stated Causes at various Ages under One Year of Age.

(See Note (a) at back.)

CAUSE OF DEATH.		Under 1 Week.		1-2 Weeks.		2-3 Weeks.		3-4 Weeks.		Total under 4 Weeks.		4 Weeks and under 3 Months.		3 Months and under 6 Months.		6 Months and under 9 Months.		9 Months and under 12 Months.		Total Deaths under One Year.	
		Certified	Uncertified																		
All Causes.	{	397	86	73	64	620	337	345	342	325	1969										
		49	—	3	4	56	14	19	9	4	102										
Small-pox	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Chicken-pox	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	1
Measles	—	—	—	—	—	—	—	—	2	6	23	50	81	—	—	—	—	—
Scarlet Fever	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	1
Whooping Cough	—	—	—	—	—	1	1	6	5	8	13	33	—	—	—	—	—	—
Diphtheria and Croup	—	—	—	—	—	—	—	—	—	—	2	6	8	—	—	—	—	—
Erysipelas	—	—	—	—	—	1	1	2	—	—	1	—	—	—	—	—	—	4
Tuberculous Meningitis	—	—	—	—	—	—	—	2	4	7	5	18	—	—	—	—	—	—
Abdominal Tuberculosis (b)	—	—	—	—	—	—	—	2	4	8	4	18	—	—	—	—	—	—
Other Tuberculous Diseases	—	—	—	—	—	—	—	2	2	2	2	6	—	—	—	—	—	6
Meningitis (not Tuberculous)	—	—	—	—	2	2	3	7	13	7	7	32	—	—	—	—	—	—
Convulsions	29	9	4	8	50	40	37	28	22	177	—	—	—	—	—	—	—	—
Laryngitis	—	—	1	—	1	—	—	—	—	—	2	1	4	—	—	—	—	—
Bronchitis	—	1	3	3	6	13	37	35	45	30	30	160	—	—	—	—	—	—
Pneumonia (all forms)	—	—	3	3	5	11	28	66	77	87	269	—	—	—	—	—	—	—
Diarrhoea	—	—	2	—	1	3	46	59	50	39	197	—	—	—	—	—	—	—
Enteritis	—	1	4	1	4	10	30	33	22	15	110	—	—	—	—	—	—	—
Gastritis	—	—	2	4	—	6	9	7	8	4	34	—	—	—	—	—	—	—
Syphilis	—	2	4	1	1	8	8	5	2	2	25	—	—	—	—	—	—	—
Rickets	—	—	—	—	—	—	—	3	5	6	14	—	—	—	—	—	—	—
Suffocation, overlying	—	7	1	—	3	11	4	5	2	1	23	—	—	—	—	—	—	5
Injury at Birth	—	5	—	—	—	5	—	—	—	—	—	—	—	—	—	—	—	—
Atelectasis	—	15	3	—	3	21	2	—	—	—	—	23	—	—	—	—	—	—
Congenital Malformations (c)	—	30	5	3	2	40	12	9	1	—	—	62	—	—	—	—	—	—
Premature Birth	—	280	39	25	14	358	29	6	—	1	394	—	—	—	—	—	—	—
Atrophy, Debility and Marasmus...	—	49	6	22	12	89	72	64	27	16	268	—	—	—	—	—	—	—
Other Causes	—	27	5	9	5	46	15	6	17	20	104	—	—	—	—	—	—	—
					446	86	76	68	676	351	364	351	329	2071							

Nett Births in the year

{ Legitimate ... 17,083
Illegitimate ... 823

Nett Deaths in the year of

{ Legitimate Infants 1,867
Illegitimate Infants 204

NOTES TO TABLE IV.

- (a) The total in the last column of Table IV. should equal the total in column 10 of Table I., and in column 3 of Table III.
- (b) Under Abdominal[†] Tuberculosis are to be included deaths from Tuberculous Peritonitis and Enteritis and from Tabes Mesenterica.
- (c) The total deaths from Congenital Malformations, Premature Birth, Atrophy, Debility and Marasmus, should equal the total in Table III. under the heading Congenital Debility and Malformation, including Premature Birth.
Want of Breast Milk is included under Atrophy and Debility.
- (d) For references to the meaning of any other headings, see notes attached to Table III.

In recording the facts under the various headings of Tables I., II., III. and IV., attention has been drawn to the notes on the Tables.

CITY OF LIVERPOOL.

Deaths of Soldiers and Sailors of H.M. Forces in the City of Liverpool
during the year 1917 and recorded as per Memorandum of the
Registrar General dated 1st November, 1915.

E DEATHS REGISTERED IN THE CITY OF LIVERPOOL,
DURING THE YEAR 1917.

